

CORRES. CONTROL
OUTGOING LTR NO.

DOE ORDER#

94 RF 01347



EG&G ROCKY FLATS, INC.
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000



000023095

January 31, 1994

94-RF-01347

Richard J. Schassburger
Acting Director
Environmental Restoration Division
DOE, RFO

Attn: S. R. Grace

SITEWIDE TREATABILITY STUDY PROGRAM - GMA-008-94

The Corrective Measures Studies/Feasibility Studies (CMS/FS) program has progressed to where we must prioritize treatability studies in order to support specific Operable Units. Attached is a prioritization plan for CMS/FS activities for Surface and Groundwater and for Soils.

EG&G Rocky Flats, Inc. requests that the Department of Energy/Rocky Flats Office review this plan by mid February 1994 and meet with EG&G to discuss the approach taken. Once concurrence is reached on this proposal, EG&G suggests it be presented to the Environmental Protection Agency and the Colorado Department of Health.

Please contact Olga Erlich of Environmental Engineering & Technology on X6957 to discuss this proposal.

Gary M. Anderson

G. M. Anderson
Manager
Environmental Engineering and Technology

JKH:cet

Orig. and 1 cc - R. J. Schassburger

Attachment:
As Stated

cc:
A. H. Pauole - DOE/RFO
M. N. Silverman - DOE/RFO

DOCUMENT CLASSIFICATION
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BERMAN, H.S.		
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DAVIS, J.G.		
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HANNI, B.J.		
HARMAN, L.K.		
HEALY, T.J.		
HEDAHL, T.		
HILBIG, J.G.		
HUTCHINS, N.M.		
KIRBY, W.A.		
KUESTER, A.W.		
MAHAFFEY, J.W.		
MANN, H.P.		
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McDONALD, M.M.		
McKENNA, F.G.		
MONTROSE, J.K.		
MORGAN, R.V.		
POTTER, G.L.		
PIZZUTO, V.M.		
RISING, T.L.		
SANDLIN, N.B.		
SETLOCK, G.H.		
STEWART, D.L.		
SULLIVAN, M.T.		
SWANSON, E.R.		
WILKINSON, R.B.		
WILLIAMS, S.(ORC)		
WILSON, J.M.		
WYANT, R.D.		
<i>Artich, O</i>	X	X
<i>Hopkins, J.K.</i>	X	X
<i>Hutchins, N.M.</i>	X	X
<i>Kevin, M.F.</i>	X	X
<i>Bugsby, W.S.</i>	X	X
CORRES. CONTROL	X	X
ADMN RECORD/080	X	X
PATS/T130G		
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CLASSIFICATION:

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IN REPLY TO RFP CC NO:

ACTION ITEM STATUS
1 PARTIAL/OPEN
1 CLOSED

LTR APPROVALS:

CRIG & TYPIST INITIALS

A-DU03-000396

PRIORITIZATION PLAN FOR TREATABILITY STUDIES

CMS/FS activities for OUs 1, 2, 3, 5 and 6 and the IM/IRA report for OU 7 will be completed by the end of FY96. EE&T is working with Technology Development and CMS/FS subcontractors to identify treatability data needs to support these OUs and meet the timeframe required to supply data to support the CMS/FS. EG&G is also assessing how to conduct the maximum number of treatability studies in Building 881 so that RFP personnel and equipment can be used to the maximum extent possible. Since many of the treatability studies also deal with radionuclides, the regulatory limit for radionuclide storage in Building 881 is being assessed.

EG&G's initial prioritization is based on data needs identified to support treatment of Pu in soils in OUs 1 and 2. This data is needed for input to the initial screening of alternatives for treatment of surficial soils in OU 1 and 2, scheduled to be completed in September 1994. Our second prioritization will be based on a review of existing data and draft COC Technical Memorandums for OUs 3, 5, 6 and 7. These technical memorandums are scheduled to be completed in approximately four months.

The initial prioritization proposal is being reviewed by EG&G personnel to confirm there will be sufficient laboratory space and rad capacity in Building 881. The prioritization is detailed below. Offsite laboratory facilities with licenses to treat and store radionuclides are being investigated concurrently.

GROUNDWATER

The RFEDs database search for sitewide groundwater data has been completed. Data are available which permit the evaluation of wells which would be most appropriate for collection of groundwater for treatability studies for the removal of rads and metals. The data evaluation will be submitted to DOE/RFO in February 1994.

The following treatability studies will be completed in FY94:

- . Adsorption and Ion Exchange (combined studies)
- . TRU/Clear
- . Solar Detoxification

The adsorption and ion exchange work plans have been approved by EPA and CDH. The TRU/Clear work plan was submitted to DOE/RFO in April 1993. EPA and CDH approval of the TRU/Clear work plan is requested in February 1994 so that the adsorption, ion exchange and TRU/Clear bench scale treatability studies can proceed concurrently. The solar detoxification workplan is scheduled to be completed and submitted to DOE in May 1994.

EG&G recommends that the oxidation/reduction treatability study be postponed to FY95 because this technology only addresses metal removal and the immediate need is to address rad removal in groundwater.

DOE has a contract with the USGS to perform an ultra/microfiltration study. A draft report has been completed. EG&G requests that a meeting be set up with USGS in early February to discuss completion of the final report.

SOILS

Information on treatment/volume reduction of Pu in soils has been identified as a major data need for FY94. EG&G and its CMS/FS subcontractor have initiated regular meetings to develop potential process flow sheets for removal of Pu from soils. The following list of technologies for OUs 1 and 2 was reviewed by EG&G personnel:

- . Physical Separation (TRU Clean)
- . Gravity/flotation/chemical enhancement (NRT)
- . High Gradient Magnetic Separation (HGMS)
- . Plasma Melter
- . Chemically Enhanced Steam Stripping
- . Solvent Extraction (B.E.S.T.)
- . Air Sparged Hydrocyclone (APT)
- . Biological Leaching (MBX)

Technology evaluations of the first four studies are underway and will be completed in FY94. EG&G also proposes to develop workplans and of Pu in soils conduct treatability studies for chemically enhanced steam stripping and solvent extraction in FY94. APT is performing pilot scale studies on Pu contaminated soils at the Nevada Test site in FY94. The NTS data would be used to support the CMS/FS at RFP. Technology Development is researching the applicability of the MBX process before it can be prioritized.

There are two additional treatability studies that were previously recommended by EPA and CDH: bioremediation and stabilization. EG&G has completed the workplan for bioremediation and will submit it to DOE in February, 1994. Bench scale testing is scheduled for FY94. Work on stabilization techniques is recommended to be postponed until specific OU data needs are identified.